IN THE CLAIMS

1. – 2. (canceled)

3. (previously presented) A digital baseband demodulation apparatus, comprising:

a quadrature detection unit that detects I component signals and Q component signals with respect to received signals including a first received signal and a second received signal;

an amplitude control unit that increases an amplitude component of the first received signal by a predetermined factor when the first received signal is on the I axis or on the Q axis, and that does not increase the amplitude component of the second received signal by the predetermined factor when the second received signal is neither on the I axis nor on the Q axis; and

a despread demodulation unit that complex despreads the I component signals and the Q component signals by using spreading code for the I axis and spreading code for the Q axis to obtain complex despread signals.

4. (previously presented) The digital baseband demodulation apparatus as claimed in claim 3, the despread demodulation unit further comprising a phase rotation unit that rotates the phase of the complex despread signal according to a control from the outside.

5. (canceled)

6. **(currently amended)** ~~A~~ The digital baseband modulation apparatus~~, comprising a plurality of pairs of a spread modulation part and an amplitude conversion part, each pair receiving a transmit signal, wherein~~

~~the spread modulation part complex spreads an I component signal and a Q component signal of the transmit signal by using spreading code for I axis and spreading code for Q axis so as to output an output signal comprising an output I component signal and an output Q component signal; and~~

~~the amplitude conversion part decreases the amplitude component of the output signal to the half when the output signal is output on the I axis or on the Q axis;~~

~~the digital baseband modulation apparatus further comprising:~~

~~a duplexing part for duplexing output signals output from the amplitude conversion parts by linearly adding the output signals;~~

~~a separation part for separating a received high speed channel signal into a plurality of separated signals to be input into the spread modulation parts; and~~

~~a switch part for switching between the separated signals and received low speed channel signals to input the separated signals or the received low speed channel signals into the spread modulation parts, and~~ as claimed in claim 10,

wherein the duplexing part adds an offset value to each I component signal when the value of the I component signal is 0 and adds an offset value to each Q component signal when the value of the Q component signal is 0.

7. (previously presented) A digital baseband demodulation apparatus, comprising:

a quadrature detection unit that detects I component signals and Q component signals with respect to duplexed received signals including a first duplexed received signal and a second duplexed received signal;

an amplitude control unit that increases an amplitude component of the first duplexed received signal by a predetermined factor when the first duplexed received signal is on the I axis or on the Q axis, and that does not increase the amplitude component of the second

duplexed received signal by the predetermined factor when the second duplexed received signal is neither on the I axis nor on the Q axis;

a separating unit that spreads the I component signals and the Q component signals output from the amplitude control unit into separated I component signals and separated Q component signals; and

despread demodulation units that receive each pair of the separated I component signals and separated Q component signals, each despread demodulation unit complex despreading the pair by using spreading code for the I axis and spreading code for the Q axis.

8. (previously presented) A digital baseband modulation apparatus, comprising:

a spread modulation unit that complex spreads I component signals and Q component signals with respect to transmit signals including a first transmit signal and a second transmit signal by using spreading code for the I axis and spreading code for the Q axis so as to output a first output signal corresponding to the first transmit signal and a second output signal corresponding to the second transmit signal, wherein the first and second output signals comprise output I component signals and output Q component signals; and

an amplitude control unit that decreases an amplitude component of the first output signal by a predetermined factor when the first output signal is output on the I axis or on the Q axis, and that does not decrease the amplitude component of the second output signal by the predetermined factor when the second output signal is output neither on the I axis nor on the Q axis.

9. (previously presented) The digital baseband modulation apparatus as claimed in claim 8, wherein the spread modulation unit comprises a phase rotation unit that rotates the phase angle of the output signal according to a control from the outside.

10. (previously presented) A digital baseband modulation apparatus, comprising a plurality of pairs of a spread modulation part and an amplitude conversion part, each pair receiving transmit signals including a first transmit signal and a second transmit signal, wherein

the spread modulation part complex spreads I component signals and Q component signals with respect to the transmit signals by using a spreading code for I axis and a spreading code for Q axis so as to output a first output signal corresponding to the first transmit signal and a second output signal corresponding to the second transmit signal, wherein the first and second output signals comprise output I component signals and output Q component signals; and

the amplitude conversion part decreases an amplitude component of the first output signal by a predetermined factor when the first output signal is output on the I axis or on the Q axis, and does not decrease the amplitude component of the second output signal by the predetermined factor when the second output signal is output neither on the I axis nor on the Q axis;

the digital baseband modulation apparatus further comprising:

a duplexing part for duplexing output signals output from the amplitude conversion parts by linearly adding the output signals;

a separation part for separating a received high speed channel signal into a plurality of separated signals to be input into the spread modulation parts; and

a switch part for switching between the separated signals and received low speed channel signals to input the separated signals or the received low speed channel signals into the spread modulation parts.